

ORIGINAL

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

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MAR 24 2004

In re:

Amendment of Section 73.622
Table of Allotments
DTV Broadcast Stations
Great Falls, Montana

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

MB Docket No. _____

To: The Secretary, FCC
Attn: Chief, Allocations Branch
Policy and Rules Division

PETITION FOR RULEMAKING

Montana State University ("MSU"), by its counsel and pursuant to Section 1.420 of the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to allot Channel *21 as a new DTV channel at Great Falls, Montana, and to reserve it for noncommercial educational use. Such an allotment would serve the public interest by providing the city of Great Falls with its first local noncommercial educational digital television channel and the surrounding areas with high quality public television programming. MSU commits to apply for DTV Channel *21 at Great Falls, if allotted and reserved for noncommercial use.

Background

MSU is a public institution of higher education in the state of Montana. It was founded as a land-grant college in 1893. MSU's home campus is located in Bozeman, Montana, community of license to MSU's noncommercial educational television station KUSM(TV). MSU also maintains three affiliate campuses located in the state, including MSU-Billings, MSU-Northern and MSU College of Technology-Great Falls. MSU's stated mission is to provide a

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challenging and richly diverse learning environment in which the entire university community is fully engaged in supporting student success; to provide an environment that promotes the exploration, discovery, and dissemination of new knowledge; to provide a collegial environment for faculty and students in which discovery and learning are closely integrated and highly valued; and to serve the people and communities of Montana by sharing its expertise and collaborating with others to improve the lives and prosperity of Montanans.

In furtherance of its educational mission, MSU utilizes Station KUSM to broadcast high quality educational, informational and cultural programming, including children's programming, locally-produced broadcasts and PBS offerings. MSU has been providing public TV service to the KUSM viewing area since 1984. MSU now hopes to further its educational mission by providing the only noncommercial educational DTV programming service based in Great Falls. Most importantly, the addition of the Great Falls DTV station allotment proposed herein would eliminate noncommercial educational television white area in portions of Montana by providing a first noncommercial educational television service to local residents. *See* attached Engineering Statement at 2. The proposed DTV operation on Channel 21 at Great Falls would provide a first educational television service to an area of 15,345 square kilometers and a population of 91,000 persons. Id.

In support of this petition, MSU submits the following:

The Allotment of DTV Channel *21 to Great Falls, Montana Satisfies Technical and Regulatory Requirements

The present proposal satisfies the minimum geographic spacing requirements with regard to all other DTV stations, DTV allotments, and analog TV stations. *See* Engineering Statement at 1. The reference coordinates for the proposed site are N. 47°-32'-08"; W. 111°-17'-02" (NAD27).

In addition, as the attached engineering statement demonstrates, this request is in compliance with the community coverage requirements of Section 73.625(a), assuming a power/height combination of no more than 1,000 kw/170 m HAAT. Accordingly, the allotment of DTV Channel *21 at Great Falls complies with the requirements of Section 73.623 of the Commission's Rules.

Moreover, this proposal complies with Section 73.622(a) of the Commission's Rules with respect to the initiation of a rulemaking proceeding to add an unoccupied DTV channel to the Table of Allotments and to reserve that channel for noncommercial educational use. As detailed above and in the attached Engineering Statement, this allotment would provide a first noncommercial educational TV service to 91,000 persons. These 91,000 persons represent the entire population within the 41 dBu contour of the proposed Great Falls Channel 21 allotment. See Engineering Statement at 2 and E-1. Therefore, the proposed allotment will provide a first noncommercial educational television service to more than 2,000 people who constitute more than 10% of the population within the proposed noise limited contour. The proposal thus complies with Section 73.622(a) of the Commission's Rules.

Allotment of DTV Channel *21 to Great Falls, Montana Would Provide the Great Falls Area with a Valuable Source of Noncommercial Educational Programming

At present, there is no noncommercial educational DTV allotment for Great Falls, Montana. The allotment of DTV Channel *21 to Great Falls would therefore provide the city with its only noncommercial educational digital television facility. Moreover, as demonstrated above, the new DTV allotment in Great Falls would significantly reduce noncommercial

educational television white area, in furtherance of the Congressional mandate in Section 396 of the Communications Act.¹

The Commission recognizes the value of local programming, especially with respect to noncommercial educational broadcasting. *See, e.g., Educational TV Assignment at Terre Haute, Indiana*, 19 RR 2d 1850, 1853 (1970) (“We have repeatedly announced our policy to forward local programming in the broadcast services. Local programming is essential particularly in the field of education in that local programming can most effectively deal with the specific problems, needs, and interests in the community being served.”)

DTV Channel *21 at Great Falls, Montana, Should Be Reserved for Noncommercial, Educational Use

The purpose of this petition is to allot a channel, for which MSU intends to apply, to provide Great Falls with its first noncommercial educational DTV channel. Reservation of Channel *21 for noncommercial educational use would make possible the enhanced provision of noncommercial and educational programs in the area. Moreover, in accordance with the requirements of Section 73.622(a), the proposed allotment would provide a first noncommercial educational service to 91,000 persons.

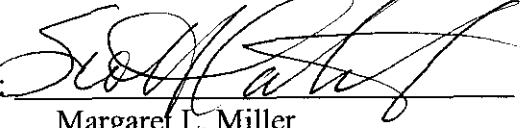
Conclusion

For all of these reasons, MSU requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to allot DTV Channel *21 to Great Falls, Montana, and to reserve it for noncommercial educational use.

¹ “It is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services through all appropriate available telecommunications distribution technologies.” 47 U.S.C. § 396(a)(9).

Respectfully submitted,

MONTANA STATE UNIVERSITY

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March 24, 2004

ENGINEERING STATEMENT
PETITION FOR RULE MAKING
SECTION 73.622 OF THE FCC RULES
ON BEHALF OF
MONTANA STATE UNIVERSITY
NEW-DT, GREAT FALLS, MONTANA
CHANNEL 21 1000 KW 170 METERS HAAT

MARCH 2004

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

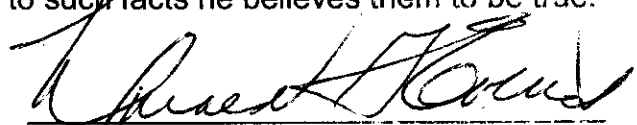
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

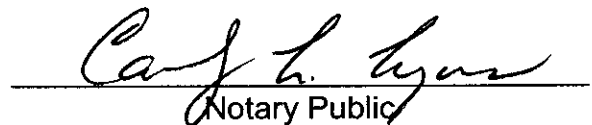
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 23rd day of March, 2004.



Notary Public

My Commission Expires: 2/28/2008

This engineering statement has been prepared on behalf of Montana State University, licensee of Television Station KUSM-TV, NTSC Channel 9, Bozeman, Montana. It is proposed to add a digital television channel educational allotment to Section 73.622 of the FCC Rules for UHF Channel 21 at the maximum UHF DT non-directional power of 1000 kW. The resulting service area encompasses the entire community of Great Falls, Montana per Section 73.625(a). The allocation study has been performed in accordance with Section 73.623(d) of the FCC Rules.

A detailed interference and spacing analysis provided in Table I has been performed of the impact of this proposal on other authorized NTSC stations, DTV allotments listed in Appendix B, and other proposed DTV allotment changes.

<u>DTV Channel</u>	<u>Effective Radiated Power (kW)</u>	<u>Height Above Average Terrain (meters)</u>	<u>RCAMSL Meters</u>
21*	1000	170	1214

North Latitude: 47° 32' 08"

West Longitude: 111° 17' 02"

*Reserved educational channel

As shown in Table 1, the addition of the DTV allotment for Channel 21 meets the criteria under Section 73.623(d) of the FCC Rules. Further, an examination of co-channel low power television and translator stations within 100 km has been performed. No other authorized low power or translator station is found.

Per Section 73.622(a) of the FCC Rules, an examination of other full-service educational service in the area of Great Falls has been conducted. It is determined that the proposed DTV operation on Channel 21 will provide the first educational service to:

a land area of 15,345 sq. km and,

a population of 91,000 (based on 2000 Census)

Exhibit E-1 depicts the proposed service within the predicted 48 dBu and 41 dBu contours.

Therefore, it is believed that the request for DTV channel will be consistent with the FCC Rules.

TABLE I
DOMESTIC INTERFERENCE SUMMARY
NEW-DT, GREAT FALLS, MONTANA
CHANNEL 21 1000 KW 170 METERS HAAT
MARCH 2004

Interference Analysis

A study of predicted interference by the proposed NEW DT service has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (July 2, 1997) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows/Intel platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC's evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system and/or processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, e.g., new interference equals total interference less baseline interference. The effect is further reduced for ratios of calculated population values, e.g., incremental population affected as a percent of total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km² using 3-second terrain data sampled approximately every 0.1 km at one degree azimuth intervals with 1990 census centroids.

The following conditions were investigated:

Proposed Addition: New DT, UHF Channel 21*, a height of 170 meters HAAT (1214 meters RCAMSL) and an ERP of 1000kW omni-directional at: N 47° 32' 08", W 111° 17' 02" (NAD-27). Tower registration number: 1027886

*Educational allotment

Interference Results

* There are no affected DTV stations within the specified "culling" distance set forth in OET Bulletin No. 69.

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TABLE II
INTERNATIONAL INTERFERENCE SUMMARY
NEW-DT, GREAT FALLS, MONTANA
CHANNEL 21 1000 KW 170 METERS HAAT
MARCH 2004

Allocation Study Based on Spacing Criteria

<u>Call</u>	<u>City/State</u>	<u>CH</u>	<u>ERP</u> kW	<u>HAAT</u> meters	<u>Coordinates</u>	<u>Distance</u>		<u>New IF</u>
						<u>Required</u> km	<u>Actual</u> km	
CBUBT-8 T	Fernie, BC	21	0.320	549.9	49° 26' 44" 114° 59' 20"	289.0	346.6	none
AB-TV-471 TV	Medicine Hat, AB	21	100	150	50° 03' 00" 110° 40' 00"	289.0	283.3	0.96%

